

# Paradigm Shift

Changing  
Government Using  
Private Sector  
Strategies

*Logistics*  
Center

A Center for Innovation ...Looking for a Better Way

## FOREWORD

In an era of tightening federal budgets and rising public expectations, many government organizations are seeking ways to change their cultures and increase their performance. The FAA Logistics Center has found a successful formula that has enabled it to transform not only itself, but to positively export its changes into other organizations that it touches. It is a benchmark site for strategic planning, performance measurement, and quality management. Its strategies and approaches have been featured in management conferences, “best practice” instruction courses, and Ted Gaebler’s latest book, Positive Outcomes, Raising the Bar on Government Reinvention.

This booklet summarizes a successful approach to achieving radical culture and performance change. It is based on the assumption that, contrary to common government beliefs, most of the strategies of the private sector are in fact applicable to government operations. In shooting for that elusive label of “world class”, the FAA Logistics Center has adopted the practices of its counterparts in the private sector. Based on our experience and success, we believe the concept of the “bottom line” has much broader applicability than most government leaders might believe.

In addition to the management practices of the private sector, we have also applied the concept of “turnaround”. The FAA Logistics Center’s willingness to entertain the possibility that the “turnaround” concept has applicability in the government, has enabled it to achieve unimaginable performance gains in just a few years. This year it is a President’s Quality Award Finalist. Last year it was a President’s Quality Award Merit Award winner. This recognition is not the measure of success, but a by-product of change.

This is the second year for this booklet. We are committed to sharing our learning, and supporting other organizations that have set their target on dramatic improvements. This book is one small way of meeting that commitment.

Sincerely,

A handwritten signature in black ink, appearing to read "Norman Bowles". The signature is fluid and cursive, with a large initial "N" and a stylized "B".

Norman Bowles  
Program Director, FAA Logistics Center



## **THE FAA IS CHANGING TO SERVE THE FLYING PUBLIC BETTER**

*CHANGES IN THE FAA  
SIGNIFICANTLY AFFECT THE  
FAA LOGISTICS CENTER*



### **SERVING THE FLYING PUBLIC BETTER**

One only needs to read the newspaper or listen to any other news media to see that airline traffic has increased, the national airspace system is operating at capacity, and everyone is concerned about delays. The aviation industry is calling for solutions. At the same time, the FAA is seeking to make changes that meet the aviation sector's need—perhaps in industry's eyes, not quickly enough. In order for the FAA to succeed, everyone in the agency needs to pull together.

The corollary to this is that the Logistics Center experiences the same pressures to change in order to serve the industry better. The other important fact is that the Logistics Center experiences all of the changes that the FAA makes. The Logistics Center is comprised of more than 600 men and women who are engineers, technicians, and inventory managers. We provide depot level repairs for the legacy systems in the National Airspace System (NAS), and we are the primary provider of parts to the NAS. As the FAA modernizes, there is a direct impact on the Logistics Center.



## **TWO FAA LOGISTICS CENTER INITIATIVES**

- **Change funding approach to Logistics Support to improve FAA-wide efficiency**
- **Substantially raise FAA Logistics Center's performance**

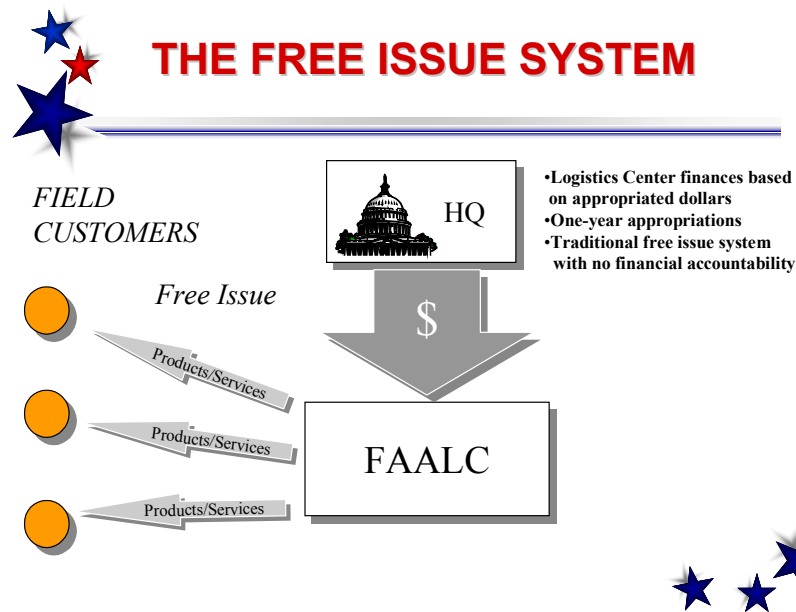


## **IMPROVING LOGISTICS CENTER SERVICE**

Five years ago, the Logistics Center made a significant change. We started seeing one of our primary customers as the flying public. We made a decision to initiate improvements that primarily increase the performance of the NAS and secondly, strive to literally attain world class performance. If we could achieve these two goals, we could contribute significantly to the agency's efforts to improve service to the flying public.

Two major initiatives were identified. The first was to change the way that logistics support was funded. The second was to undertake major internal changes to boost performance.

It is a given that change is not easy for any organization that chooses to make systems, cultural, and performance changes at the same time. It is even more difficult when the changes are designed simultaneously to change both the component organization and a major process for the entire agency. Independently each change is difficult, but when the two changes interact it can be quite a ride.



### PREVIOUS FUNDING SYSTEM: FREE ISSUE

Regarding the funding, for several decades the FAA utilized a free issue system that is depicted here on this graph. Under the existing free issue system, the Logistics Center received about \$120 million to buy parts and issued them free on demand to customers in the field.

Free issue, regardless of the agency, is generally an inefficient system. When anything such as supplies or equipment is provided free, it is often difficult for the recipient to realize the true value of the items. Thus, expensive items are treated the same as items costing less. Rare items are given the same treatment as common items. Customers will often order more than they need. When the General Services Administration (GSA) provided administrative supplies free to federal employees, consumption rates were much higher than after GSA started charging agencies for the same supplies.

Over the years, all major agencies with large logistics operations have abandoned this type of system because of the negative effects it produces on operations. The biggest problem with this approach is that there is virtually no visibility of costs, obsolescence, quality issues, and it masks accountability for asset management. The FAA was the last remaining agency to use this system and is now changing the system.

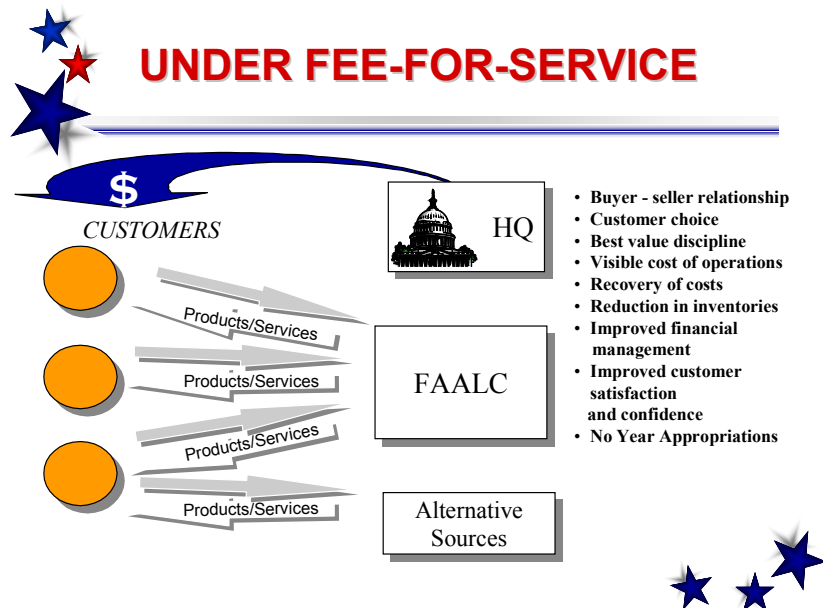
## THE NEW AND FUTURE SYSTEM: FEE-FOR-SERVICE

In 1996, the Logistics Center proposed moving to a “pay as you go” system that utilizes a revolving fund (franchise fund) similar to that found at other major federal logistics organizations. Under this approach, the Logistics Center’s funds would be given to the customers of the Logistics Center’s services. They would then pay full price for the parts and services they ordered.

The fundamental difference between these two funding approaches is basically the same difference between a communist system and a free market system. In fact, DOD made the switch in the early 70s and 80s because it “...didn’t make sense to use a communist logistics system (DOD’s words) to fight the cold war.”

Congress did not approve the revolving fund concept the first time that the FAA proposed the change. Therefore, the Logistics Center in conjunction with its customer organization, Airway Facilities, moved into a “store credit” system. The FAA customers in the field were given a store credit allocation equal to the entire budget of the Logistics Center, and then the customers pay for parts that they used with store credits. The prices they pay are fully loaded prices which include parts, labor, and other costs of the Logistics Center.

In 2000, Congress approved the revolving fund concept. The FAA Logistics Center in conjunction with its customer organization, Airway Facilities, moved into a fee for service system. The FAA Logistics Center gave ALL its \$120 million back to its customers and retained no funding, not even funding for salaries. It’s customers then had to pay for the parts and services they received.





## **FEE-FOR-SERVICE BENEFITS**

- Accelerates modernization
- Increases NAS availability
- Reduces waste in use of materials and supplies
- Establishes greater financial accountability
- Improves the Air Traffic Control equipment quality
- Heightens level of customer satisfaction



FLYING PUBLIC SATISFACTION



## **HOW THE PUBLIC BENEFITS**

The benefits to the flying public of changing this system are nothing short of profound. Let us give you one small example of a hidden cost that this change will correct. For years, the agency has had the Logistics Center repair a certain radio rather than replace the radio. Under the “free issue system”, the cost of the radio repair appeared to be free. Simply send the radio to the Logistics Center and a repaired radio will be returned to the customer at no charge. That seems simple, doesn’t it?

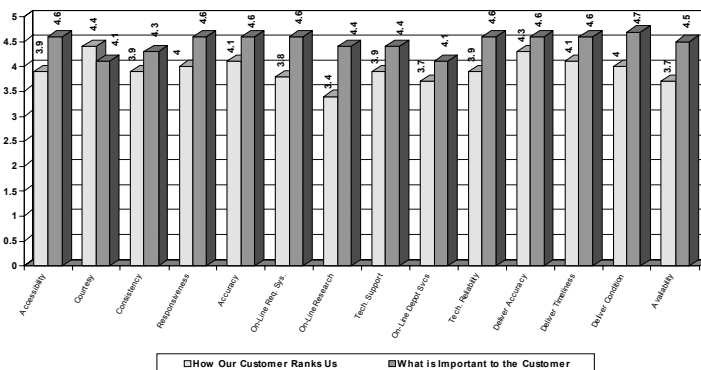
Under “pay as you go”, our customers see it costs \$1,200 to repair a radio that can be replaced for \$400 or that it costs \$28,000 to repair a black and white radar monitor when a new color monitor costs only \$7,000. This is just the tip of the iceberg. Multiply this on a large scale, and you may be able to see how these benefits are possible.

The final effect of charging customers for the parts or the services they receive is that they begin to place value where none existed before. Parts or services are ordered only when they are needed. Items that are paid for by customers are handled, maintained, stored, and tracked more carefully. The final result is that equipment lasts longer and the costs of maintaining it begin to decrease as the users seek to find ways to reduce their parts and supply costs. The outcome is that the flying public and American taxpayer benefit enormously.



## IN 1996/1997 LOGISTICS CENTER CUSTOMER SATISFACTION WAS LOW

1997 CUSTOMER SATISFACTION SURVEY



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## CUSTOMER SATISFACTION: 1996

You have probably realized that this change means that the Logistics Center would be giving up its monopoly status. There are few organizations that are willing to voluntarily take that type of risk. Giving up monopoly status means that customers could go elsewhere. It also means that jobs could be affected. The Logistics Center decided to take the difficult road anyway. There are few federal organizations with a greater “can-do” attitude than that displayed by the men and women of the Logistics Center.

If the Logistics Center was going to give up its annual appropriations and give its customers choices, then survival was dependent on offering our customers service that was so good and so fast that they would prefer to do business almost exclusively with the Logistics Center. An example of the challenge facing the Logistics Center workforce is that the first customer satisfaction survey showed that the Logistics Center’s customers were not satisfied with the Logistics Center’s performance.

This survey measured two dimensions: how our customers rated us and where they expected our service to be. This 1996/97 survey told us we needed to make many changes. We had large gaps in virtually every measurement area. Our employees were asked where they would rank a major league sports team that had this kind of rating. They answered, “Last.” When asked if they would buy a car that had ratings like this, they answered, “No.” What about a new television set that had a consumer rating like this? “No, we would not buy it.”

“Was this survey good news or bad?” they were asked. “Good”, someone replied. “At least now we know where we really stand.”





## 1996 FAA LOGISTICS CENTER GOALS

- **TURNAROUND IN 2 YEARS**
- **CONVERSION TO FEE-FOR-SERVICE 3 YEARS**



## THE GOALS

We said the first area of focus was to change the funding approach. The second was to boost performance. You can see from the customer satisfaction survey that we had to complete the performance boost first, otherwise risk losing our customers. Thus, our goals were to complete a private sector turn around in two years, and then one year later convert to fee for service.

At that time, our budget was declining substantially in real dollar terms. We decided we would operate like Chrysler, Harley-Davidson, Apple, or any other company in the private sector that suddenly found itself losing market share. These particular types of companies found that they must get their products and services better than their competitors. At the same time, these companies are experiencing declining revenues and a decreasing workforce.

At this time, we moved all of our managers into different jobs so that our management team would have the maximum receptivity to change. Some organizations might be reluctant to make this move. Managers have considerable institutional memory and are experts in their areas of responsibility. By moving managers, we gained many benefits. First, managers were willing to change things in their new organizations because they didn't own the past ways of operating. Secondly, the managers could focus on the fact that their jobs were specifically to move the change initiatives along to successful completion. Finally, our managers could focus on managing rather than being technical specialists.



## FORMATION OF SPECIAL TEAMS

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### Examples:

- **Cost and Performance Management**
- **“Data-mart”**
- **ISO Certification – Quality Management**
- **Fee-for-Service Conversion**
- **Customer Service**
- **Communication and Marketing**
- **Logistics Support Facility Modernization**
- **Organizational Realignment**
- **Strategic Workforce Planning**



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## USING EMPLOYEES TO LEAD

In 1996, the Logistics Center had few performance measures, no meaningful quality system, and no clear idea of what its customers wanted. If wholesale change was to be achieved, then it would be necessary to make multiple, simultaneous changes throughout the organization. The Logistics Center could not afford to hire expensive consultants who would take their experience and knowledge and tailor solutions to the Logistics Center. However, it did have many employees who were experts in their respective areas who had the motivation and interest to make the Logistics Center better.

We redirected between 10-20% of our workforce toward making changes, while the remainder of the workforce maintained operations. These changes were directed or identified by ad hoc employee teams. This chart identifies some of the issues they were tasked to address.

When the ad hoc teams were formed, there were some complaints about productivity losses. Oddly enough, our customers started giving us feedback that they liked the improved service we were offering. We had a conundrum. What explained the perception that production was dropping but customer satisfaction was improving. When we studied the issue to better understand this contradiction, we quickly discovered we were using the wrong measures for productivity.



## BENCHMARKING THE BEST PRACTICES

Oklahoma Department of Commerce	City of Indianapolis	Indianapolis, IN
Pace-Butler Oklahoma City, OK	Harris Corporations	Melbourne, FL
Defense Distribution Depot Jacksonville, FL	DSC Communications	Plano, TX
Defense Distribution Depot Oklahoma City, OK	Eaton Corp.	Shawnee, OK
Century Inc. Oklahoma City, OK	Charles Machine Works (Ditch Witch)	Perry, OK
Dana Corp. Oklahoma City, OK	Goff Industries	Seminole, OK
Defense Distribution Depot Warner Robins, GA	Seagate Corp.	Oklahoma City, OK
Southwestern Distribution Center Forth Worth, TX	Love Box Corp.	Oklahoma City, OK
NCR Worldwide Service Logistics Peachtree, GA	US Coast Guard Yard	Baltimore, MD
Charles Machine Works (Ditch Witch) Perry, OK	Naval Surface Warfare Center	Philadelphia, PA
Defense Logistics Agency Mechanicsburg, PA	City of Phoenix	Phoenix, AZ



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## BENCHMARKING

We came to the early conclusion that we did not know what actions to take to become better, much less become the best. If we had known, we would have taken the actions many years before. We became disciples of benchmarking. We resolved to learn from the best in the business. We sent our teams to the best companies in our field. Their objective was to see how other world class organizations operated and to bring these ideas back to the Logistics Center.

We quickly realized there is a powerful benefit that comes from sending employee teams on benchmarking trips. Employees who saw the “best in class” usually came back so completely dissatisfied with the status quo that they were never the same again. They came back motivated, knowing the changes that needed to be made.

Based on their benchmarking trips, several teams reported that the Logistics Center Strategic Plan was not an adequate road-map for change of the magnitude planned. The management team asked some employees to lead an effort to develop a better strategic plan. The resulting strategic plan was one of the first “balanced scorecard” plans in the federal government, and was labeled by National Performance Review (NPR) and others as one of the best in the government. The Logistics Center’s strategic plan has been used by government agencies as a model, and has been used by some training organizations as a teaching tool for planning. It is also featured in Ted Gaebler’s book, Positive Outcomes, Raising the Bar on Government Reinvention.



## FAA LOGISTICS CENTER IMPROVEMENT INITIATIVES

- Franchise Fund
- Bar Coding
- Distribution Center Modernization
- Data Mart
- Reorganization
- Management/Supervisory Competency Modeling and Training Assessment
- World Class and Executive Financial Training
- Customer Surveys
- ISO 9000 Certification
- Y2K Initiative
- Business Process Engineering
- Customer Care Center
- Revamp Financial System
  - ♦ Convert to Financial Statements
- Redesign Inventory Practices



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## SIMULTANEOUS IMPROVEMENTS

We chose to make all of the changes simultaneously rather than sequentially since the changes would either take too long, or never get done. The chart shows just a partial list of the initiatives. The choice to initiate all changes simultaneously is probably one of the major factors resulting in a “turn around” similar to that seen at Harley-Davidson, Apple, Chrysler, and other companies. The challenge with multiple, simultaneous change initiatives is that it leads to more “chaos” than sequential changes, and it is hard work. In the private sector, it is the fact that survival is dependent on results that makes the “chaos” worth tolerating.

We hired the controller of Fleming Foods, the Nation’s largest food distributor company, and his primary focus was to change our financial system to look like that of any of our competitors in the private sector. As a result, today our managers talk about our business in terms of sales and gross margins, and we have a much better grasp of our business.

Like a business, we placed our emphasis on developing or changing our business systems, so our funds were invested first in business tools, and then second in operations. We quickly found that this reversal in priorities resulted in immediate increases in customer satisfaction because our performance started improving almost immediately.



## **EMPHASIS ON EMPLOYEE TRAINING**

- **How to be a Customer Driven Organization (600 employees)**
- **Achieving World Class Performance (600 employees)**
  - ◆ Phase I – Effective Teams
  - ◆ Phase II – Business concepts and tools
- **Business & Financial Management Principles for Managers**



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## **TRAINING, TRAINING, TRAINING**

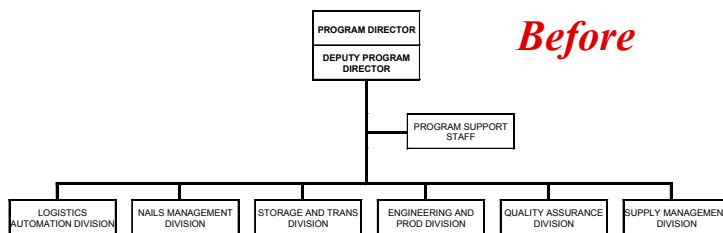
As an example of a major business investment, we significantly increased our funding for training. In particular, we put a major emphasis on training our organization to be a business and to be customer driven. All of our employees and managers have gone through extensive training on how to align our business to focus on customer satisfaction. We also trained our entire workforce in business practices which will continually improve our customer focus.

Another major training investment was in the area of ISO 9000. All managers, as well as many employees, received ISO 9000 audit training. The result was that we obtained ISO certification in record time compared to other similarly sized organizations, and we achieved it under budget. ISO 9000 places such a premium on process improvement that our operations efficiency improved along with our quality.

During times of tight budgets, agencies often cut back on training. Yet often training is the necessary ingredient to achieve changes that move the organization to higher levels of efficiency, performance, and customer service.



## THE FAA LOGISTICS CENTER 1997



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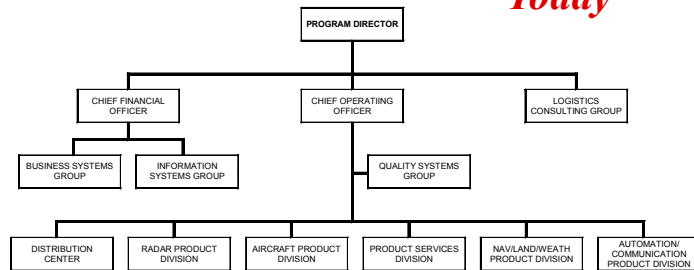
## PREVIOUS ORGANIZATIONAL STRUCTURE

We completely reorganized our organization from a functional alignment into a product alignment. This reorganization was so thorough that rather than move boxes around, we literally realigned our organization one employee at a time.

The organization that we would eventually move to was so radical that we created and operated a prototype for more than a year. The prototype produced significant performance results. The employees who were in the prototype were so convinced that it was the way to go that they asked the management team for permission to call an organization-wide meeting. They then put on a show and skit that illustrated the benefits of the new structure to all of the other employees. Following the skit, they bought lunch for all six hundred employees of the Logistics Center. A couple of months later, the employees of the prototype applied for and won a team award for their efforts through the Oklahoma City Federal Executive Board.

## FAA LOGISTICS CENTER

*Today*



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## PERFORMING ORGANIZATION

Many people from industry will see that our structure is very similar to any product manufacturing company. Each product division is self-contained with the full range of employee skills and disciplines necessary to produce a quality product. Unlike the previous functional alignment, the product division structure provides complete accountability within each individual product line. The performance boost achieved from the new structure was substantial.

The new structure presented some interesting challenges. Until this time, our managers typically managed groups that were homogeneous with respect to job skills. In other words, a manager might oversee an organization comprised solely of technicians or entirely of inventory managers. Now, almost every manager oversees a multidiscipline organization. This places a high premium on sound management skills. Expert knowledge in a field becomes even less relevant at the management level under a product line structure. Management, leadership, and communications skills become more important.

Note the Chief Operating Officer and Chief Financial Officer positions. Both positions have *direct* leadership and evaluation responsibility to the line organizations. The Chief Operating Officer ensures the organization delivers quality service. The Chief Financial Officer ensures that managers deliver that service while operating in the black. It is not enough to do a job well; the job has to be done while operating in the black at lower costs than our competitors.



## RESULTS EMERGE



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## ISO 9000

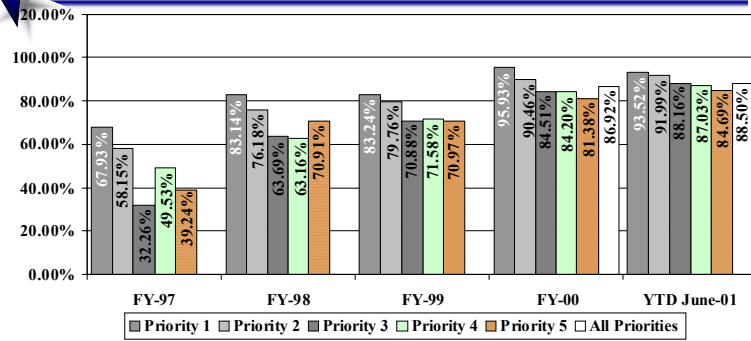
Setting a target on ISO 9000 certification requires a change in mindset for many government organizations who are accustomed to being the “regulator”. ISO 9000 means that as a federal organization, we must be willing to be evaluated and audited by a private sector firm. It also requires the willingness to recognize that the private sector quality standards may be as rigorous or even more so than many government quality standards.

ISO 9000 helps our quality so much that we needed to ensure that our vendors’ quality system was equally rigorous. We created a program where any ISO 9000 certified respondent to a request for a proposal would receive a 12% price offset. This means that the ISO certified bidder could cost up to 12% more than its non-ISO competitors and still win the bid.

The Logistics Center raised the bar with its ISO 9000 certification. We assisted three other FAA organizations attain ISO 9000 certification, and more have started the certification process. This benefits the flying public substantially in terms of a better quality air traffic control system. We also helped Tinker Air Force Base and other agencies realize the same goal.



## CUSTOMER ORDERS FILLED IN 24HOURS FISCAL YEAR TO DATE



•Benchmark standard originally 89.9%  
•Revised in the ARC Performance Plan to 90.92%  
\*\*Refinements to data collection process were instituted mid FY-98

The Methodology for the retrieval of this data is currently under review and expected to change in the near future.

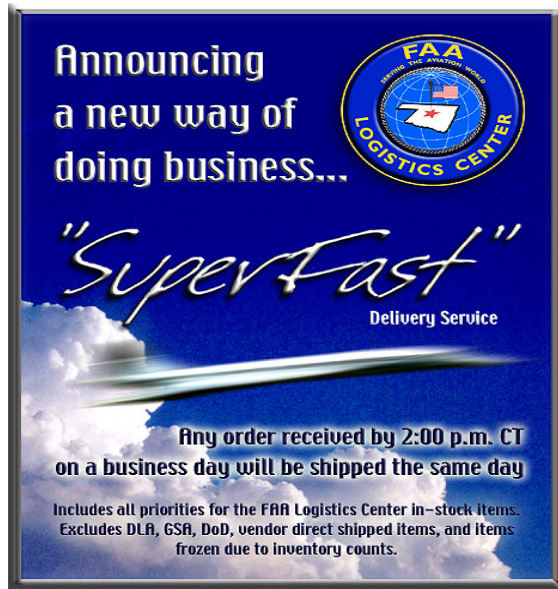
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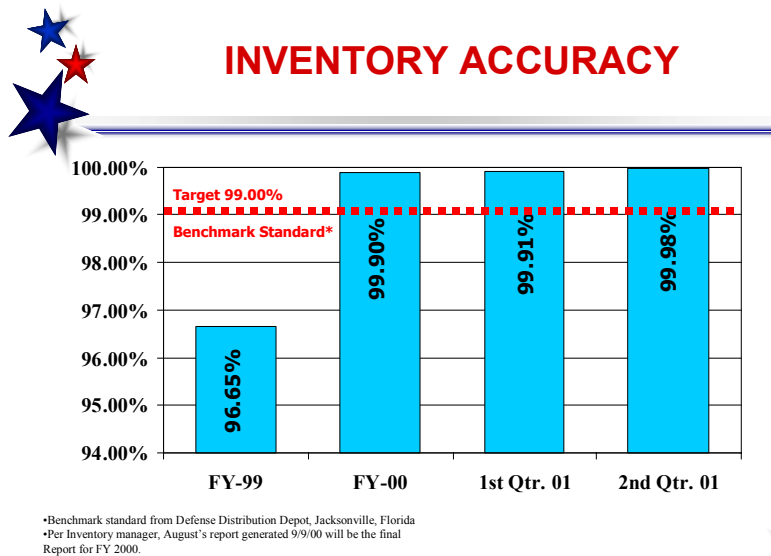
## FILLING CUSTOMER ORDERS

This chart reflects the percentage of orders that leave the Logistics Center within 24 hours of the order placement during a three year period. Priority 1 represents the most urgently needed components in the airspace system and priority 5 is less urgent. Three years ago, even the highest priority orders had a good chance of not being filled and shipped until the next day. In fact, less than 70% of the top priority orders were even processed within 24 hours. Two years ago almost every single order left the Logistics Center within 24 hours. In July 2001, the Logistics Center announced that any order placed by 2:00 p.m. central time would be shipped that same day. Today the difference between the top priority order and the lowest priority order is simply the mode of transportation, air versus ground.

We made these dramatic performance improvements through a combination of many process improvements and employee innovations.

This performance speaks for itself. In an agency that handles tens of thousands of aircraft flights a day, the ability to get parts to the customer is exceptionally important. What is particularly notable about this data is that the workforce levels of the Logistics Center were decreasing throughout this entire period.





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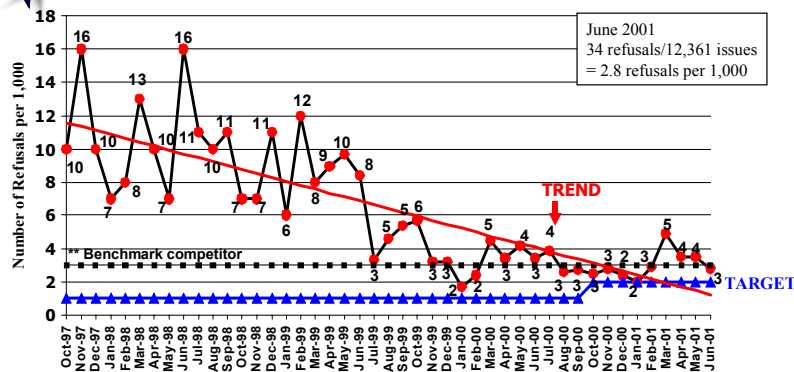
## MORE IMPROVEMENTS

Four years ago, the Logistics Center had attracted the attention of the Office of the Inspector General (OIG) for having failed to perform a “wall-to-wall” inventory in more than 20 years. Because a clean financial audit for the FAA was dependent upon an accurate inventory, the Logistics Center was under pressure to complete a wall-to-wall inventory. As its first major change initiative, the Logistics Center committed to complete the wall-to-wall quickly, and then moved on to making major improvements.

The Logistics Center established a goal to complete a wall-to-wall inventory of 20 million items worth \$1/2 billion in just 8 days. It conducted item counts for 8 days straight, 24 hours a day under the watchful eye of the OIG. The ending inventory value accuracy was about 95%. Today, it is 99.98% and still improving.

Not all Logistics Center performance results are as exemplary as the inventory results. In some measurement categories the trends are neutral, and in others the data shows mixed performance. However, when it is established that a poor performance trend may be emerging in a key measurement area, an action plan is developed to ensure that the root cause is identified and corrective actions are taken.

## WAREHOUSE REFUSALS



## SURPASSING THE BEST

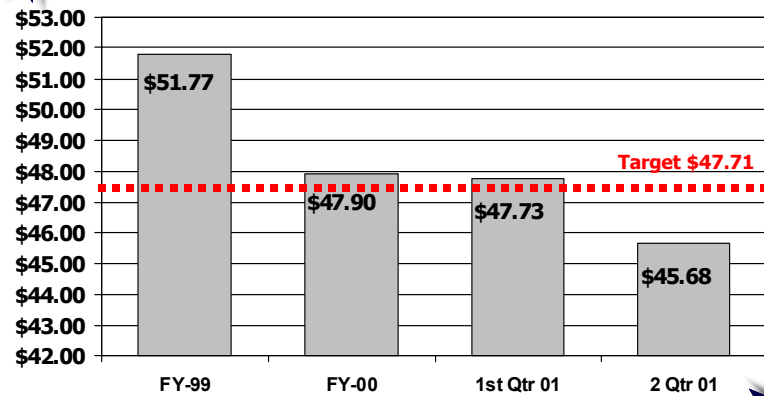
This chart depicts inventory refusal rates, which is another category of performance where the Logistics Center is now among the best in the government. The storage and distribution function is one of the areas where the Logistics Center conducted substantial benchmarking. These trips resulted in many changes which resulted in major performance improvements.

Performance data collected during these visits were posted in the distribution center. This gave the distribution center's workforce clear performance goals. There is nothing like seeing the competition's performance to give a clear vision of what is attainable and what can be surpassed.

How do the employees of the Logistics Center respond to this wholesale change? Like anyone else, we get tired and frustrated with constant change. We get irritable, grumpy, and we want to get the change behind us as soon as possible. Four years of change is a long time, but we are also proud of what we have accomplished. We show it in interesting ways. In 1996, we achieved 97% of our goal for the Combined Federal Campaign. In 1997 we hit 112%; 135% in 1998; and 144% in 1999. This says a lot about the Logistics Center workforce.

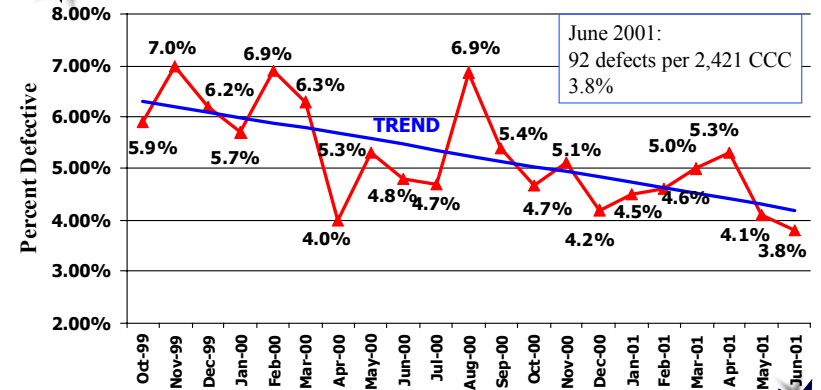
## Unit Cost Of Distribution

### Total Distribution Cost Per Issue



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## CSA REPORTED DEFECTIVE PRODUCTS VERSUS CUSTOMER CARE CENTER CALLS RECEIVED



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## GOVERNMENT AND FAA-WIDE APPLICABILITY

- **Putting the customer first changes priorities for the better**
- **Operating like a business makes sense**
- **The same people can produce different results**



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## CONCLUSIONS

First, when we made the change to put our customers first, our priorities changed. We targeted the flying public as our primary customer along with our field customers. This meant that we looked at every one of our actions in terms of whether it would benefit the customers, rather than ourselves. This small change made it possible for us to see the benefits of moving to a fee for service system, even though it greatly increased our own personal risks. More importantly, it gave a lot of justification and rationale for taking on the stress of making many changes.

Secondly, there has been a lot said about whether it makes sense for the government to try to operate like a business when we are the government—not a business. Based on the Logistics Center's experience, we would ask the opposite question, "Why would we want to operate like the government when we can operate much better like a business?" There may not be a profit motive in the government, but very clearly, when we changed our financial systems we could see that there definitely was a bottom-line. Not-for-profit and nonprofit organizations such as the Red Cross, hospitals, or health maintenance organizations, routinely do business with an eye on a bottom-line.

Finally, the results of our turn around tend to suggest that organizational performance has less to do with the people and has much more to do with the systems. The Logistics Center still has the same management team and the same workforce as we had four years ago. Everyone will tell you that we probably work no harder today than we did three years ago. But we do work better because we employ better business systems.

The private sector approach works great. We highly recommend it.